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FLOOD PLAIN ZONING IN CALIFORNIA— OPEN SPACE BY ANOTHER NAME: POLICY AND PRACTICALITY

At a given moment in time, a city has two basic sets of resources. There are its people, their talents, and their institutions, whether business, public, or social. Its other stock in trade is its land surface, which amounts to a collection of locations, each with unique characteristics. To a considerable extent, a city's future depends upon its ability to induce people and organizations to use these locations to best advantage, from various standpoints: the functioning of the city's economy; satisfying the social, cultural, and aesthetic needs of the city's population; minimizing fiscal costs and maximizing fiscal returns. These objectives are often in conflict with one another.*

I.

INTRODUCTION

The uses allowed upon property subject to flood plain zoning restrictions are the type of uses that result in an increase of private open space.¹ To the extent that development on flood-prone property in California imposes costs upon others in excess of benefits conferred, inefficient land use is occurring.² If these costs are recognized as the type of costs capable of being limited by zoning, flood plain zoning can be an effective land use measure tending to induce more efficient use of private property and can increase an area's inventory of private open space.

There are few cases dealing with the constitutionality of flood plain zoning, and no case has ever invalidated a flood plain zoning

* D. NETZER, *ECONOMICS AND URBAN PROBLEMS* 110 (1970).

1. As to the relationship between flood plain zoning and open space, one only needs to consider a recent flood plain zoning case—*Turner v. County of Del Norte*, 24 Cal. App. 3d 311, 101 Cal. Rptr. 93 (1972). Plaintiff's property was restricted to parks, recreation, and agriculture. (See note 8, *infra*, and accompanying text). While this admittedly is not public open space, it is open space for which a demand exists—less intensively developed private property. The nature of this demand for private open space is described in ECKBO, DEAN, AUSTIN AND WILLIAMS, *OPEN SPACE: THE CHOICES BEFORE CALIFORNIA* 17-19, 71-72 (1969).

2. Dunham, *A Legal and Economic Basis for City Planning*, 58 COLUM. L. REV. 650, 659 (1958).

ordinance in its entirety.³ However, several cases have refused to apply a flood plain zoning ordinance to a particular litigant's property.⁴ These cases have established the constitutionality of flood plain zoning,⁵ given proper enabling legislation⁶ and careful local ordinance drafting. Allison Dunham, whose article on flood plain zoning pre-dated most of the cases, accurately concluded a 1959 article by stating:

Land use regulation of flood plains with the objectives of preventing external diseconomies and protecting users from their own purportedly inevitable irrationality in the assumption of flood risk, presents an adequate basis to withstand attack under the due process clause of the constitution. *Some particular ordinances may fail because of failure of the draftsmen to consider problems of equal protection of the laws.*⁷

A recent California case, *Turner v. County of Del Norte*,⁸ illustrates both the constitutionality and open space impact of flood plain zoning. *Turner* upheld a county zoning ordinance restricting plaintiff's use of his flood-prone property to parks, recreation, and agriculture. Evidence established that the property had been flooded four times since 1927, or an average of every eleven years.⁹

3. 1 UNITED STATES WATER RESOURCES COUNCIL, REGULATION OF FLOOD HAZARD AREAS TO REDUCE FLOOD LOSSES 467-471 (1971). [hereinafter cited as REGULATION OF FLOOD HAZARD AREAS]. This is a valuable publication for those interested in flood plain, land use. It contains model enabling statutes and ordinances, and discusses flood plain zoning in general.

4. Note especially *Dooley v. Town Plan and Zoning Comm'n*, 151 Conn. 304, 197 A.2d 770 (1964). For a recent case of interest, see *Sturdy Homes v. Township of Redford*, 30 Mich. App. 53, 186 N.W.2d 43 (1971). Here, the court refused to apply a flood plain zoning ordinance to *Sturdy Homes'* property, because the area in question was not subject to flooding. However, the court specifically overturned the "Addendum Opinion" of the trial court that voided the zoning ordinance as unconstitutional. In *Morris County Land Improvement Co. v. Township of Parsippany-Troy Hills*, 40 N.J. 539, 193 A.2d 232 (1963), a zoning ordinance creating a Meadows Development Zone was declared invalid in full. This case is often cited as a flood plain zoning case, however, in a footnote to the opinion, the court distinguishes open space zoning from flood plain zoning and stated that the decision was not meant to pass on the validity of flood plain zoning. *Id.* at 242.

5. REGULATION OF FLOOD HAZARD AREAS, *supra* note 3, at 414-417. But see Bartke, *Dredging, Filling and Flood Plain Regulation In Michigan*, 17 WAYNE L. REV. 861, 901 (1971). "The question of the constitutionality of flood plain zoning remains unanswered and the issue is very controversial."

6. See text accompanying notes 24 through 43 *infra*.

7. Dunham, *Flood Control Via the Police Power*, 107 U. PA. L. REV. 1098, 1132 (1959) (emphasis added).

8. 24 Cal. App. 3d 311, 101 Cal. Rptr. 93 (1972).

9. *Id.* at 313, 101 Cal. Rptr. at 95. If this 11-year average is the true average interval of flooding on this property, then this means a "recurrence interval" of 11 years. "It should be kept in mind that flood-frequency compilations and analyses of the type described yield values of a

The court, concluding that the restrictions constituted a proper exercise of the County's zoning power, dealt in a conclusory manner with the taking issue.

It is clear that there was sufficient testimony of the reasonableness of the ordinance in relation to the promotion of health, safety or general welfare and prosperity of the community. (See *Flood Control Via Police Power*, 107 Penn. L. Rev. 1098).

There was also evidence of a frequency of flooding which would almost certainly eventually destroy any permanent residences built on this land and endanger the lives and health of the occupants and, further, that buildings in the flood plain property would increase flood heights which could conceivably increase the hazard to other buildings away from the zoned area.

The zoning ordinance in question imposes no restrictions more stringent than the existing danger demands. Respondents may use their lands in a number of ways which may be of economic benefit to them.¹⁰

Turner does little to define the elusive boundary between a taking and proper exercise of the police power through zoning. However, considering the conclusory manner with which the court dealt with the taking issue, the case is significant because it implies that the restrictions imposed by the zoning ordinance were not approaching the outward permissible limit of flood zoning restrictions. What about applying these, or similar, restrictions to property where floods can be expected to occur every twenty-five years? What about floods occurring every fifty or one-hundred years?

The purpose of this article is to determine both the outward permissible limit of flood plain zoning restrictions and the nature of restrictions that may be imposed. This requires an investigation of the extent and manner of expression of the policies underlying flood plain zoning in California. Full utilization of flood plain zoning, while justified only as a means of placing costs of development upon developers, has the practical affect of creating open space. A local desire for open space underscores the costs of highly intensive land use in the flood plain, and should be a motivating factor in the decision to control land use within a flood plain.

parameter—recurrence interval. This is the average interval of time within which a flood of a given magnitude will be equalled or exceeded but once. It is also a statement of probability. Thus, a flood having a recurrence interval of 10 years is one that has a 10% chance of recurring in any single year." L. LEOPOLD, M. WOLMAN AND J. MILLER, *FLUVIAL PROCESSES IN GEOMORPHOLOGY* 65-66 (1964).

10. 24 Cal. App. 3d at 314-15, 101 Cal. Rptr. at 96.

II.

THE RELATIONSHIP BETWEEN OPEN SPACE AND FLOOD PLAIN ZONING

Support for the proposition that there exists a desire for open space in California needs little documentation. The best evidence of a State policy reflecting the desire is Article XXVIII of the California Constitution, entitled "Open Space Conservation."¹¹ Population and land use projections for California indicate that there will be increasing pressure on utilization of even marginal land resources.

Development patterns are characterized by sprawl, scatteration, San Francisco Bay filling, highway strip commercial sprawl, the spatial merging of cities and urbanization of some of the finest agricultural soils and specialty crop areas of the nation.

Urbanization of marginal lands subject to erosion, sliding, earthquake hazard and flooding is becoming a problem because of the lack of land for expansion.¹²

Despite the recognition of zoning as one method of accomplishing limited open space objectives,¹³ it appears that courts are not willing to accept zoning which has as its primary purpose open space or natural area preservation. A series of recent cases can be characterized as attempts to use a zoning approach to maintain wetlands, coastal areas, or quasi-riparian private property in a natural open condition. The factual pattern of these cases is similar. A property owner has desired to alter the natural condition of his property by construction of residences or businesses. However, a state or local government has desired to keep the property in its unspoiled condition. Judicial reaction to these "open space through police power" cases has been unfavorable.¹⁴

11. CAL. CONST. ART. XXVIII, § 1. "The people hereby declare that it is in the best interest of the state to maintain, preserve, conserve and otherwise continue in existence open space lands for the production of food and fiber and to assure the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens."

12. ECKBO, DEAN, AUSTIN AND WILLIAMS, *OPEN SPACE: THE CHOICES BEFORE CALIFORNIA* 16 (1969).

13. *Id.* at 71.

14. *Morris County Land Improvement Company v. Township of Parsippany-Troy Hills*, 40 N.J. 539, 193 A.2d 232 (1963) (*supra* note 4), voiding a Meadows Development Zone as an attempt to freeze property in its undeveloped condition. *Commissioner of Natural Resources v. S. Volpe & Co.*, 349 Mass. 104, 206 N.E.2d 666 (1965), refusing application of a state statute attempting to maintain marsh areas in their natural condition. *MacGibbon v. Board of Appeals of Duxbury*, 356 Mass. 635, 255 N.E.2d 347 (1970), refusing to apply zoning restrictions, which had as their purpose prevention of despoilation of natural resources such as salt marshes, wetlands, brooks and ponds, to MacGibbon's property. *State v. Johnson*, 265 A.2d 711 (Me. 1970), voiding application of a statute forbidding alteration of coastal wet-

Two factors emerge as dominant in the rationale underlying these decisions. First, the benefits accruing to the public are seen as disproportionately large in comparison to benefits accruing to the property owner. In *State v. Johnson*, a Maine court said:

The benefits from its [the litigant's coastal marsh property] preservation extend beyond town limits and are state-wide. The cost of its preservation should be publicly borne. To leave appellants with commercially valueless land in upholding the restriction presently imposed, is to charge them with more than their just share of the cost of this state-wide conservation program, granting fully its commendable purpose.¹⁵

The other dominant factor in these open space preservation cases has been a comparison of the value of the property with and without the restrictions. For instance, in a Connecticut decision—*Bartlett v. Zoning Commission of the Town of Old Lyme*¹⁶—there was evidence that the property, a tidal marshland, was worth \$32,000 without the restrictions, compared with \$1,000 if the open space zoning ordinance was allowed. This disparity in value provided the prime reason for the court's refusal to apply the restrictions.¹⁷

Despite judicial reluctance to uphold zoning restrictions designed only to preserve open space, a local desire for open space has important connections with flood plain zoning. First, many California counties and cities have not decided to zone the flood plain.¹⁸

lands. *Bartlett v. Zoning Commission of the Town of Old Lyme*, 161 Conn. 24, 282 A.2d 907 (1971), refusing to apply a zoning restriction placed upon tidal marshland. *State v. Johnson*, 265 A.2d 711 (Me. 1970). This case voided an injunction against filling coastal wetlands issued in accordance with state environmental legislation. *Bartlett v. Zoning Comm'n of the Town of Old Lyme*, 161 Conn. 24, 282 A.2d 907 (1971). Here, a zoning ordinance was deemed to impose unconstitutionally severe limitations as to the property owner's use of his tidal marshland.

15. *State v. Johnson*, 265 A.2d 711, 716 (Me. 1970).

16. *Bartlett v. Zoning Commission of the Town of Old Lyme*, 161 Conn. 24, 282 A.2d 907 (1971).

17. *Id.* at 31, 282 A.2d at 910.

18. This article is concerned with whether a local agency has exercised its option to zone the flood plain, and also with the *extent* of the restrictions. Listed below are the counties and cities of California that have some form of flood plain zoning. No claim is made as to comprehensiveness. This list is taken from REGULATION OF FLOOD HAZARD AREAS, *supra* note 3, at 496. Counties: Imperial, Sacramento, Napa, Riverside, Mendocino, Tehama, Alameda, Stanislaus, and Del Norte. Cities: Riverside, Sacramento, Palm Springs, Mountain View, Oceanside, Azusa, Manhattan Beach, Chula Vista, Hayward, Los Angeles, Napa, and Fremont.

While it is obvious that the extent of flood risk varies in California, failure to regulate flood-prone land can mean two things. First, a local agency might itself fail to recognize the cost of flood damage. Alternatively, a failure to regulate land use in a flood plain can imply tacit acceptance of the cost of flooding. Given a strong local policy for open space preservation, and realizing that flood plain zoning results in an increase of private open space, the very existence of this demand should be a motivating factor in the initiation of flood plain regulations. This follows, because a local desire for open space properly focuses attention on the costs of overly intensive land use in the flood plain, and these are the very costs that justify flood plain zoning.

A second connection between a desire for open space and flood plain zoning is the possible impact that this desire may have on both the outward permissible limit and the nature of restrictions that may be imposed. It has been noted that zoning based upon more traditional aspects of the police power, but having substantial aesthetic overtones, is frequently upheld.¹⁹ These decisions thinly veil, if not an outright support of aesthetic zoning, at least a tacit approval of the function of aesthetics in the zoning process. Examples of this phenomenon can be found in the "billboard cases"²⁰ and cases allowing minimum lot size restrictions.²¹

It has been noted that this judicial permissiveness of essentially aesthetic land use controls might actually be more profound in California than in other jurisdictions.

Considering the traditional willingness of California courts to uphold police power regulation which demonstrably serve some public purpose, it is difficult to conceive of a California court deciding a case like *Morris County Land Improvement Co. v. Township of Parsippany-Troy Hills* (*supra* note 4) as it was decided by the New Jersey Court.²²

In that case, the New Jersey court invalidated a zoning ordinance creating a Meadows Development Zone, as an attempt to freeze

19. See generally Bowden, *Article XXVIII—Opening The Door To Open Space Control*, 1 PAC. L.J. 461 (1970), and Steinbach, *Aesthetic Zoning: Property Values and The Judicial Decision Process*, 35 MO. L. REV. 176 (1970).

20. Steinbach, *Aesthetic Zoning: Property Values and The Judicial Decision Process*, 35 MO. L. REV. 176, 180 (1970), citing *General Outdoor Advertising Co. v. Dep't of Public Works*, 289 Mass. 149, 193 N.E. 799 (1935).

21. Note, *Zoning: Aesthetics: The Chameleon of Zoning*, 4 TULSA L.J. 48, 59 (1967), citing *Lionshead Lake Inc. v. Wayne Tp.*, 10 N.J. 165, 89 A.2d 693 (1952).

22. Bowden, *Article XXVIII—Opening The Door To Open Space Control*, 1 PAC. L.J. 461, 484 (1970).

property in a natural, open, condition.²³ It is impossible to predict the actual effect of this consideration upon flood plain zoning. There is a possibility that these open space factors might represent, to a limited extent, part of an unspoken rationale in upholding marginally severe restrictions.

III.

THE COBEY-ALQUIST FLOOD PLAIN MANAGEMENT ACT: DEFINITIONS AND ENABLING LEGISLATION

In California, the Cobey-Alquist Flood Plain Management Act,²⁴ and the California Administrative Code sections adopted to implement the Cobey-Alquist Act,²⁵ provide the definitional framework for this analysis. First, a flood plain "shall mean the relatively flat area or lowlands adjoining the channel of a river, stream, watercourse, ocean, lake, or other body of standing water, which has been or may be covered by floodwater."²⁶ If land borders a body of water and is relatively flat or lowlands, it may be considered part of the flood plain. It is not necessary that the land has been flooded in the past, only that it may be in the future. It is also significant that no outward limit of the flood plain is delineated.²⁷

The Cobey-Alquist Act divides the flood plain into two portions—the "designated floodway" and the "restrictive zone." The first portion closest to the stream channel is called the "designated floodway," and is the area of the flood plain "required to reasonably provide for the construction of a project for passage of the design flood"²⁸ The design flood is the flood selected (e.g. 20-year flood) either by a federal agency or a local agency (county or municipality) against which protection will be provided by some form of flood control project.²⁹ Adjacent to, or flanking the "designated floodway" is the "restrictive zone," which "means the por-

23. *Morris County Land Improvement Company v. Township of Parsippany-Troy Hills*, 40 N.J. 539, 193 A.2d 232 (1963).

24. CAL. WATER CODE §§ 8400-8415 (West 1971), *added by* STATS. 1965, c. 506, P. 1826, § 1.

25. 23 CAL. ADMIN. CODE §§ 200-242.

26. 23 CAL. ADMIN. CODE § 201(g).

27. *Compare* MINN. STAT. ANN. § 104.02 (1969), where the flood plain is defined in terms of that area covered by the 100-year flood.

28. CAL. WATER CODE § 8402(f) (West 1971).

29. CAL. WATER CODE § 8402(c) (West 1971).

tion of the natural floodway between the limits of the designated floodway and the limits of the flood plain where inundation may occur but where depths and velocities are generally low."³⁰

A threshold question in any litigation involving zoning is the existence of enabling legislation authorizing local governments to zone.³¹ There is authority to support the contention that normal zoning enabling legislation will support the constitutionality of flood plain zoning,³² and there is general language supporting flood plain management in California zoning enabling legislation.³³ However, the Cobey-Alquist Flood Plain Management Act represents *specific* authority for local agencies to regulate land use in flood plains. Flood plain zoning, as provided for in the Cobey-Alquist Act is permissive, but encouraged.³⁴ It is mandatory only in the sense that state financial assistance to local flood control projects will be withheld if regulations in the "designated floodway" do not exist.³⁵ As to the "restrictive zone," a policy of complete permissiveness and deference to local policy is expressed.³⁶

In the "designated floodway," the Cobey-Alquist Act calls for a prohibition of all structures which might endanger life or significantly restrict the carrying capacity of the "designated floodway."³⁷ However, only general guidelines for permissible land use controls within the "restrictive zone" are outlined. These general guidelines call for development within the "restrictive zone" based on local agency policy considering both the protection of human life, and the carrying capacity of flood plain.³⁸ The Administrative Code interpreting this section of the Water Code, adds that optimum use of the flood plain is the goal, "taking into account the need for the land and the flood hazard."³⁹

It is apparent, that not only is the decision to control land use in the flood plain a local decision, but the nature of the restrictions is sketchy and ambiguous, allowing a large degree of local discretion. The findings and declarations section of the Cobey-Alquist Act provide some additional guidelines when imposing restrictions. First, it is stated that a large portion of the state's land resources

30. CAL. WATER CODE § 8402(g) (West 1971).

31. D. HAGMAN, J. LARSON AND C. MARTIN, CALIFORNIA ZONING PRACTICE §§ 1.3, 1.4 (1969).

32. *Id.* at § 6.57.

33. CAL. GOVT. CODE § 65303 (West 1971).

34. CAL. WATER CODE § 8401(c), (d) (West 1971).

35. CAL. WATER CODE § 8411 (West 1971).

36. CAL. WATER CODE § 8401 (West 1971).

37. CAL. WATER CODE § 8410(a) (West 1971).

38. CAL. WATER CODE § 8410(b) (West 1971).

39. 23 CAL. ADMIN. CODE § 222.

is subject to flooding which results in loss of life and property, as well as disruption and interruption of commerce, transportation, and communication. These effects of flooding are found to be detrimental to the health, safety, welfare, and property of the people of California.⁴⁰ In addition, a state policy of flood plain regulation through a combination of flood control works and land use regulation is expressed.⁴¹ This dual approach to flood plain regulation is to be undertaken with the aim of prevention of loss of life, and prevention of economic loss caused by excessive flooding.⁴²

As a policy directing device, enabling legislation for flood plain zoning in California seems fully adequate because the ambiguity of the act indicates an attitude allowing local discretion. In addition, regulations promoting reduction in flood damage detrimental to persons' health, safety, welfare, and property are allowed. The specific aims of flood plain management—prevention of loss of life and prevention of economic loss caused by excessive flooding—encompass a wide range of policy objectives. While some of the specific policy objectives supporting flood plain zoning are not expressed in the Cobey-Alquist Act, the language of the act is broad enough to embrace them.⁴³

IV.

HOW OFTEN MUST IT FLOOD?

Having established that the California legislature has given local agencies a broad policy foundation upon which to base flood plain zoning restrictions, the problem remaining is to establish the outward limit of restrictions, and the type of restrictions that may be imposed. Because of the scarcity of cases, and because the decided cases are clouded with ancillary issues, they cannot be combined to

40. CAL. WATER CODE § 8401(a) (West 1971).

41. CAL. WATER CODE § 8401(b) (West 1971).

42. CAL. WATER CODE § 8401(b) (West 1971).

43. Examples of policies supportive of flood plain zoning not specifically included in the Cobey-Alquist Act are (1) flood plain zoning will reduce instances of land purchasers being victimized by fraud and (2) flood plain zoning will relieve the psychological burden placed on a community from seeing members of the community victimized by disaster. See generally Dunham, *Flood Control Via the Police Power*, 107 U. PA. L. REV. 1098 (1959), and Note, *Flood Plain Zoning For Flood Loss Control*, 50 IOWA L. REV. 552 (1965).

delimit the contours of these outer limits.⁴⁴ Also, little help is provided by writers discussing flood plain zoning suggesting permissible limits. One author stated: "To bar substantial development on areas of the flood plain which have a flood frequency of seventy-five years would impose too great a burden."⁴⁵ Others say: "A 100-year frequency is a commonly chosen basis for regulation."⁴⁶ These suggestions are untested, and provide little help in resolving the problem.

Additionally, there are economic generalizations that fail to resolve the problem because of a lack of specificity. "Regulations should guide flood-susceptible uses away from flood-prone lands only if production of goods and services is possible on nonflooded land at less total cost to society than production on flood-prone lands."⁴⁷ Few would quarrel with the accurateness of this formulation. However, the translation of this benefit-cost formulation to zoning maps consistent with the body of law that has defined (or failed to define)⁴⁸ the limits of permissible restrictions is not possible.

First, benefit-cost formulations have no constitutional basis as a means of imposing zoning restrictions, because certain costs to society, imposed as a result of inefficient land use, are not legally controllable through zoning. Thus, if a careful analysis shows that a parcel of flood-prone, private, property has as its optimal use a public park, local agencies may not zone the parcel for that use. To do so would overstep the permissible limit of zoning and constitute a taking.⁴⁹ Secondly, many of the costs resulting from a flood and many of the benefits accruing to society from various uses defy quantification. It is one thing to measure the cost of repairing a flood damaged building, and quite another to place dollar values on such factors as the psychological "cost" of seeing community members victimized by natural disasters.⁵⁰ For these

44. For a collection of these cases see REGULATION OF FLOOD HAZARD AREAS, *supra* note 3, at 467-71. Consider *Sturdy Homes Inc. v. Township of Redford*, 30 Mich. App. 53, 186 N.W.2d 43 (1971), where the property was simply not subject to floods.

45. Beuchert, *Zoning on the Flood Plain*, 49 A.B.A.J. 258 (1963).

46. REGULATION OF FLOOD HAZARD AREAS, *supra* note 3, at 83.

47. *Id.* at 292.

48. See generally Van Alstyne, *Taking or Damaging By Police Power: The Search For Inverse Condemnation Criteria*, 44 S. CAL. L. REV. 1 (1971).

49. D. HAGMAN, URBAN PLANNING AND LAND DEVELOPMENT CONTROL LAW § 180 (1971).

50. This is a frequent problem in benefit-cost analysis. See Hammond, *Convention and Limitation In Benefit Cost Analysis*, 6 NAT. RES. J. 195 (1966).

reasons, a benefit-cost formulation provides little help in delineating zone boundaries.

The usual test of zoning ordinances is to require a litigant contesting the ordinance to show that the regulations imposed are not rationally related to the regulatory objectives.⁵¹ This concept is expressed in *Turner*: "The zoning ordinance in question imposes no restrictions more stringent than the existing danger demands."⁵² Combining this dicta in *Turner* and the rational relationship requirement, a test for flood plain zoning ordinances may be formulated. Flood plain zoning should impose no restrictions more stringent than the existing flood danger demands. However, this statement also suffers from a lack of specificity and must be more fully developed.

The initial question to answer is, may restrictions within the area designated the "flood plain" be uniform within that area, or should there be a decrease in the severity of restrictions as one moves into areas of the flood plain where the probability of flooding is less? The purpose of flood plain zoning is to limit (not eliminate) the costs of flooding. Property on the 10-year flood line can be expected to encounter a flood once every 10 years, while property located on the 100-year flood line can be expected to encounter a flood only once every 100 years. Thus, the long term costs of flood relief for property on the 100-year flood line will be less than these costs for property on the 10-year flood line.

If restrictions of equal severity are imposed within the area called the "flood plain," more of the burden of this cost limitation will fall on property in the lower probability area than in the higher. However, if the severity of the restrictions is decreased as the flood danger decreases, each area of the flood plain will bear a proportional burden of the cost limitation.

To illustrate this, assume that all costs of floods are borne by the community. Further assume that equally productive property on the 10 and 100-year flood lines can be expected to incur \$1,000 of flood damage at each flood occurrence. Since the community at

51. *Johnston v. City of Claremont*, 49 Cal. 2d 826, 323 P.2d 71 (1971). See generally 1 E. YOKLEY, *ZONING LAW AND PRACTICE* § 2-12 (3d ed. 1965).

52. 24 Cal. App. 3d at 315, 101 Cal. Rptr. at 96.

large pays for floods, the value of these parcels to their owners is equal. In the next 100 years, the expected flood costs will be \$10,000 for the parcel on the 10-year flood line, and \$1,000 for the parcel on the 100-year flood line. If equal restrictions as to a desired use upon the parcels are imposed, each owner's expected benefit from that use will be reduced to nothing. To reduce both owner's interest in this restricted use to zero, because one owner imposes a \$10,000 cost on the community, as compared with the other owner who imposes a \$1,000 cost on the community is to impose an unequal burden of this cost limitation on the parcel located on the 100-year flood line. Thus, the severity of restrictions should decrease as the probability of a flood decreases.

As long as the goal of flood plain zoning is to reduce flood costs rather than eliminate them, each property owner within the flood plain should bear a proportional burden of this reduction. The way to achieve this is to delineate a series of concentric boundary lines within which less severe use restrictions are imposed as one moves into areas of the flood plain having less flood risk. The question of the number of boundary lines to delineate is important, for divisions based on one-year flood probability intervals or even five-year intervals seem unwieldy. Too many divisions would place a severe burden on either the property owner or the local agency, and strain the capability of the agency in determining the accurate placement of boundaries. The Cobey-Alquist Act, which divides the flood plain into two portions—the "designated floodway" and the "restrictive zone" provides a logical zone boundary.

The Cobey-Alquist Act allows prohibition of essentially all structures within the "designated floodway."⁵³ It would seem logical that all structures may not be prohibited outside the "designated floodway." However, the type of structures and the use to which they may be put, may be restricted.⁵⁴ It is suggested that the "restrictive zone" may be further divided into two zones. Closest to the body of water would be an intermediate zone beginning at the boundary of the "restrictive zone" and ending at some arbitrary point (for example the 75-year flood line). Within this area, restrictions calling for agricultural structures, single family residences, and large minimum lot sizes for residences and businesses might be imposed. The rational relationship of these restrictions to the existing danger is, that since flooding can be expected relatively infrequently, some development will be allowed. However,

53. CAL. WATER CODE § 8410(a) (West 1971).

54. CAL. WATER CODE § 8410(b) (West 1971).

because these infrequent floods impose costs upon the community, the responsible agency has decided to limit the extent of these costs. Production of goods and services within this zone is of value to society, but since society will be forced to pay an additional amount for these goods and services at the time of some future flood, the agency has decided to limit that future expenditure.

The second area within the "restrictive zone" could be called the flood plain fringe area. This could extend to the 100-year flood line or further. Here, the restrictions as to minimum lot size and single family residences could be somewhat relaxed. The rational relationship of these restrictions to the existing danger is expressed much the same way as it was expressed in the other areas of the flood plain. As the flood probability in this fringe area is less than the probability in the intermediate zone, less flood relief expenditure can be expected in the future. Therefore, less severe restrictions are imposed commensurate with the existing flood danger. The actual limit of the restrictions is predicated on the agency's determination of the need for the land compared with the flood risk.

A developer might argue that he should have the option of paying the expected costs of floods, exempting himself from the restrictions.⁵⁵ However, the costs of floods are more than financial, for a developer can do little to pay for the "cost" of lost lives and disrupted community life. In addition, these future costs are speculative. Flood data yields expected future costs and not exact future costs. The only way of paying for future floods and exempting property from flood plain restrictions is to raise the level of the property above that of the flood plain fringe area through filling. It must be recognized that filling flood-prone land could mean that the raised area's communications and transportation would still be disrupted severely during a flood, and the raised area would increase the flood height endangering neighboring property. However, where practical, the fill option should be left to the developer.

This three-part division of the flood plain does not place a severe burden on the local agency to determine a multitude of flood fre-

55. A recent case gave this option to the developer where the "costs" sought to be avoided were financial. *Golden v. Planning Board of Town of Ramapo*, 30 N.Y.2d 359, 285 N.E.2d 291 (1972).

quency boundaries, and should withstand constitutional tests. The restrictions decrease in severity as the flood danger decreases. Conformance with the Cobey-Alquist Flood Plain Management Act can be demonstrated because the act places the burden of weighing the need for the land and the flood risk upon the local agency.⁵⁶ If the local agency is to properly weigh these considerations, then a desire for open space must be a factor in the agency's assessment of the need for the land. While a three-part division of the flood plain is suggested as a model upon which to base flood plain restrictions, there are other plans for division of the flood plain that would work equally well. A local desire for open space should be a motivating factor in deciding to zone flood plains, because this desire underscores the costs of overly intensive development in the flood plain.

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56. CAL. WATER CODE § 8401(d) (West 1971).